



Final Agenda (v.3)

Imaging as a Biomarker: Standards for Change Measurements in Therapy A U.S. Measurement System Workshop

September 14-15, 2006
National Institute of Standards and Technology
Administration Building – Red Auditorium

SEPTEMBER 14, 2006

- | | |
|--------------------------------|---|
| 7:30a.m. – 8:30 a.m. | Registration & Continental Breakfast |
| 8:30 a.m. – 8:45 a.m. | Welcome <ul style="list-style-type: none">• Welcoming Remarks
<i>William Jeffrey, PhD, Director, NIST</i>
<i>Belinda Seto, PhD</i>
Deputy Director
National Institute of Biomedical Imaging and Bioengineering, NIH
<i>Larry G. Kessler, ScD</i>
Director, Office of Science and Engineering Laboratories
Center for Devices and Radiological Health, FDA |
| 8:45 a.m. – 9:15 a.m. | Overview of Goals & Outputs of the NIST USMS Project |
| 9:15 a.m. – 10:30 a.m. | Session 1: Standards Needs from Public Private Partnerships
<i>Focus: Imaging as a Biomarker -- Sources of Image Variability
in the Measurement of Change Over Time</i>
Session Chair: Larry Clarke, PhD, NCI <ul style="list-style-type: none">• Alzheimer's Disease Neuroimaging Initiative
(<i>Michael W. Weiner, MD, ADNI</i>)• Osteoarthritis Initiative (OAI)
(<i>Charles Peterfy, MD, SYNARC</i>)• Reference Image Database to Evaluate Response (RIDER) and Related
Oncology Biomarker Initiatives
(<i>Larry Clarke, PhD, NCI</i>)• FDA Perspective – The Necessity for Standardization of Imaging in
Multicenter Clinical Trials for Investigational Drugs & Biologics
(<i>George Mills, MD, FDA</i>) |
| 10:30 a.m. – 10:45 a.m. | Break |

SEPTEMBER 14, 2006

10:45 a.m. – 12:45 p.m.

Session 2: Stakeholder Perspectives

Session Chair: Mostafa Analoui, PhD Pfizer

- Pharmaceutical Research & Manufacturers of America
(**Mostafa Analoui, PhD, Pfizer**)
- Radiological Society of North America
(**R. Gilbert Jost, MD, President-elect RSNA**)
- American College of Radiology
(**Mitch Schnall, MD, PhD, Chair-elect ACRIN**)
- American Association of Physicists in Medicine
(**Jim Purdy, PhD, ATC, AAPM**)
- Society for Nuclear Medicine
(**Sandy McEwan, MD, President-Elect SNM**)
- IT and Architectures for Imaging Biomarkers
(**Michael Hehenberger, PhD, IBM Healthcare & Life Sciences**)
- Contract Research Organizations
(**David A. Clunie, MD, Chief Technology Officer, RadPharm**)

12:45 p.m. – 1:45 p.m.

Lunch - NIST Cafeteria

1:45 p.m. – 2:00 p.m.

Session 3: Concurrent Breakout Sessions

Goals for Breakout Sessions -- Linda Beth Schilling, NIST

Day 1 -- Big Picture Roadmapping – The What by When?

*Day 2 -- Detailed Measurement Science & Standards Needs
– The What by When and by Who?*

2:00 p.m. – 2:15 p.m.

Adjourn to Breakout Rooms

2:15 p.m. – 4:00 p.m.

Concurrent Breakout Sessions:

***Big Picture Roadmapping
– The What by When***

(Breakout includes discussions of other emerging imaging modalities)

- Area #1: X-Ray & X-Ray CT: What can be measured over time?
(Disease models: Lung Cancer, Bone Imaging and Osteoarthritis)
(**Charles Peterfy, MD, Chair**)
- Area #2: PET & PET CT: What can be measured over time?
(Disease models: Alzheimer's Disease and Lung Cancer)
(**Paul Kinahan, PhD, Chair**)
- Area #3: MRI, MRS, DCE and Diffusion MRI: What can be measured over time?
(Disease models: Cardiology, Oncology, Osteoarthritis)
(**Jeffrey L. Evelhoch, PhD, Chair**)
- Area #4: Open architecture and software tools: Image and meta-data collection and analysis, data integration and display
(**Larry Tarbox, PhD, Chair**)
- Area #5: Resources for qualification of imaging systems, benchmarking of image processing and data integration tools, and related statistical methods.
(**Nick Petrick, PhD, Chair**)
- Area #6: Data archival and access methods: Image, related meta-data and clinical outcome data, related data interoperability standards, and innovative methodologies for data interpretation.
(**Mike Vannier, MD, Chair**)

SEPTEMBER 14, 2006

3:00 p.m. – 3:15 p.m.

Break

4:00 p.m. – 5:00 p.m.

Session 4: Chair Reports from Breakout Sessions *(10 min each)*

- Area #1: X-Ray & X-Ray CT
- Area #2: PET & PET CT
- Area #3: MRI, MRS, DCE and Diffusion MRI
- Area #4: Open Architecture and software tools
- Area #5: Qualification of imaging systems
- Area #6: Data archival and access methods

5:00 p.m. – 7:00 p.m.

Session 5: Poster Reception in NIST Hall of Flags

SEPTEMBER 15, 2006

7:30 a.m. – 8:00 a.m.

Continental Breakfast

8:00 a.m. – 9:30 a.m.

Session 6: Medical Imaging-Integrated Solutions

Session Chair: Andrew Whitman, VP NEMA Medical

Company Perspectives: *(15 – 20 min each)*

- **Jonathan Allis, PhD** -- GE Healthcare
- **David Rollo, MD** -- Philips Medical Systems
- **Heinrich Kolem, PhD** -- Siemens Medical Solutions

Audience Q&A Moderated by Session Chair *(15 - 30 min)*

9:30 a.m. – 9:45 a.m.

Break

9:45 a.m. – 12:30 p.m.

Session 7: Concurrent Breakout Sessions

(same topic areas cont'd)

Detailed Measurement Science & Standards Needs – The What, by When and by Whom?

- Area #1: X-Ray & X-Ray CT
- Area #2: PET & PET CT
- Area #3: MRI, MRS, DCE and Diffusion MRI
- Area #4: Open Architecture and software tools
- Area #5: Qualification of imaging systems
- Area #6: Data archival and access methods

12:30 p.m. – 1:30 p.m.

Lunch – NIST Cafeteria

SEPTEMBER 15, 2006

(All Afternoon Sessions to be Held in the Red Auditorium)

1:45 p.m. – 2:45 p.m.

Session 8: Chair Reports from Breakout Sessions

(15 min + 5 min Q&A each)

- Area #1: : X-Ray & X-Ray CT
- Area #2 : PET & PET CT
- Area #3 : MRI, MRS, DCE and Diffusion MRI

2:45 p.m. – 3:00 p.m.

Break

3:00 p.m. – 4:00 p.m.

Session 8: Chair Reports from Breakout Sessions (cont'd)

(15 min + 5 min Q&A each)

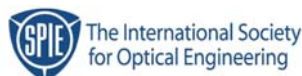
- Area #4: Open Architecture and software tools
- Area #5 Qualification of imaging systems
- Area #6: Data archival and access methods

4:00 p.m. – 4:30 p.m.

**Closing Session: Perspectives on Priorities and Next Steps
A Stakeholder Panel Discussion**

Session Facilitator: Michael Vannier, MD Univ. of Chicago

NIST and All the Workshop Sponsors Thank You for Your Participation.



National Institute
on Aging ■ ♦ ★ ✨